In understanding how current technologies are impacting digital library development and services, it can be very useful to stay familiar with the literature of the whole of the internet era, not just the most recent 5 years' worth. It's tempting, even for doctoral students in classic disciplines such as psychology, to overlook what was "new and good" in the not-so-recent past; indeed, this is a major concern for faculty who teach doctoral students. For us, with our intense focus on high-quality services and collections that are coherent and useful in today's warp-speed technological marketplace, it's reassuring to remember that "What is past is prologue." The "dedo exciting mobile explosion of 2007 and 2008 puts me in mind of something Nicholas Negroponte described in the 1995 classic, Being Digital (Vintage Books). He portrayed a day in his life at MIT, watching all the "cyborgs" running along the Charles River or walking across campus, multitasking all the way, Yep—mobile was good even then. The mobile technology users of 1996 must be flabbergasted by the power and growing ease of use in the mobile universe of 2009. Texting, movies, video, email, web surfing, Flickring, Twittering—take your pick. But the abundance brings its dilemmas. In the midst of this sea of applications, many of which carry blue-sky potential for innovation, what's a digital librarian to do?

Answer: Get with the program. On a personal level, that means taking the dive and buying the gadgets that people are using, from the iPhone on. For institutions, it means much more. Large research libraries with huge mandates for service need to approach the mobile revolution on multiple fronts. Staff "geniuses" need to get an authoritative handle on the tech market—that's new and good and what is about to appear. They also must be empowered to advise the leadership. Large-scale systems offices need to do whatever it takes to enable their subject experts to pipe compelling and answer-rich information to smartphones and other handheld gadgets. Perhaps most important of all, the large research libraries that set the standard for the highest-quality information need to make sure that they can be discovered and appreciated by anyone, anywhere—whether on a subway, in a movie theater lobby, or an airplane stuck on the tarmac at Chicago's O'Hare International Airport on a cold winter's day. And the "user experience" better be a good one too—because they will accept nothing less.

In short: It's never been a better time to be a digital librarian. We move fast, we know our value points, and we are, as individuals, practicing organizational "push technology" to motivate our firms and institutions. That is to say, never before have our grand research libraries and universities needed to listen to us more as they struggle to retool for the mobile era.
I always hope that my readership includes members of the “top brass” as well as those on the front lines, so I’m going to make some statements and suggestions about dealing with the mobilized library that are aimed at both the top echelons of the profession and those who are new, lean, and looking for a way to make a contribution. As Josh Hedro, associate editor of Library Journal’s net/Connect supplement, said in October 2008, “We must act now to accept these new mobile means of delivery that patrons are quickly coming to expect. If we don’t, we risk forfeiting an opportunity for relevance and a chance to provide worthwhile input to the shape of mobile things to come” (www.libraryjournal.com/article/CA6599049.html). I couldn’t agree more, and here are my suggestions for how to take what we’re already doing and stretch it into a bigger and better service model.

Understanding the Stream of Development

We can thank Facebook for opening up a new relationship between consumers and startups on the prowl: Facebook’s strategic gift of source code to enable the creation of widgets was a swift move. Apple has embraced it, albeit with a fee and a touch of proprietary bias, just as any longtime Mac or iPod user would expect. The number of “apps” for the iPhone has grown fast and will continue to grow. Writing apps for various platforms—or for every platform—seems to be a strategy that rivals forming a startup: These days, “snippets” are good. This is a new way to do business, and even some established Web 2.0 players have been leery of it. For a small fee to Apple, you can code for the iPhone; the experience isn’t unlike being a part of an open source community, supporting a scripting language such as PHP. This new reality is shaping the mobile market, and it has also been extremely successful in creating content pipes to mobile devices.

The weather, stock market trackers, “answer” services—they are already deeply embedded in the mobile market.

The good news is that if you are a coder, you can get in and make a contribution. My guess is that within the next calendar year, we will have a full-court press of iPhone apps and other code that is written by librarians, especially those fresh out of grad school. It’s already happening, and now we are certain to see acceleration.

Here’s what we need to make this kind of “genius” worker welcome in the profession: reorganize our systems offices to support them. That does not need to be a tall order; it might just entail a call for contributors who have code skills and who can figure out how to build distinctive interfaces for mobile tools. My own view is that it would be even better if large systems offices created “associate” status for subject librarians who are also code-geeks. This matches deep subject knowledge with interface skills, and it puts these librarians right in the middle of the design stream. It can be done. But if any large and august institution gives it a try, they darn well need to recognize, value, and support that new associate status; they should not use it as a cynical way to pile more work on top of existing workloads.

Answers, Just Answers

Take a look at the top players in mobile interface design—MobileMe, Google, Mobipocket Reader (and the BBC and U.S. television networks)—and what you see is a strong focus on answers. Searching the web encourages open-ended leaps around sites and domains and can be fun as well as productive. On a small screen, even with beautiful resolution, there is no time for such playfulness. If you’re offering scientific data, for example, you must be sure to format it in the most succinct way. Screen space is limited, and most likely, so is browsing time. To get a sense for this, take a look at Google Mobile Search (www.google.com/m) and assess the spare design. This is the model that research libraries need to emulate.

The Power of One

Coming back to the staff genius idea: We need to support creativity at the personal level. The growth of iPhone app coders suggests that tech folk really like to make contributions and also have at least a small measure of recognition. For research libraries, the challenge is slightly different. Geniuses should be capable of leveraging coding skills in all directions, making the entire library look cutting edge by reinventing its online profile. As organizations, we need to discover effective ways of rewarding this role, which often runs tandem with a full list of other work responsibilities.

New Opportunities for Vendors

The vast world of the technology marketplace is booming, even in the face of uncertain economic conditions around the globe. The world of library vendors (a much smaller domain) is struggling to keep pace—and doing better than one might expect. Vendors are mindful of the mobile world; SirsiDynix has PocketCirc and Innovative Interfaces, Inc. has AirPAC. These interfaces bring to phones library services with a simplified look and feel. However, the challenges facing library vendors aren’t simple in my view. I think it’s time for our biggest vendors to enter into joint development agreements with institutions to gain access to mobile geniuses who know research and users well. For that to succeed, both parties need to benefit, perhaps by sharing tools that get developed or perhaps through shared revenue or royalties. Even “micropayments” such as OCLC’s credits for original cataloging would present a viable approach. The key objective to remember is that as mobile computing becomes a primary pipeline...
for knowledge resources, the greater library community—including vendors, libraries, and the profession itself—will benefit from working together.

(Thin) Client-Focused

In thinking about the mobile revolution, or maybe better said, the mobile acceleration, it is very easy to feel overwhelmed. Yet that's not how I feel personally. And I attribute that lack of alarm on my part to an understanding of two things: the history of the web's explosive growth and society's many reactions to it and that tried-and-true skill that librarians possess in abundance, pattern recognition. I recognize a pattern in the mobile acceleration. It's a new and powerful information pipeline, and it causes us to wonder if it will undermine our future, or "disintermediate" us altogether. The web itself inspired a lot of rhetoric about the demise of libraries, or at least their virtualization. But look: We're still here, and many of us are thriving. The best way to understand the mobile acceleration is to regard it as just another tool, just another technological platform upon which we provide the services we wish to. We are already client-focused, and we're pretty good at it too. Mobile technology is a new kind of "thin" client because it relies on cloud computing and social networking. This is not a problem; it is a vast opportunity. If we can remain client-focused, we will surely end up mastering the technical challenges of these newest of clients too. To do so will require creativity, organizational support, and boldness.

Like I said: There's never been a better time to be a digital librarian.

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